

The large delta of the Mohawk extending from Schenectady toward Albany is a witness of the fine sands and clays which poured into Lake Albany from the west, in which direction lay the great glacial lakes whose development coincided with the retreat of the ice front across the Mohawk valley. The stage of the great glacial lakes with which the delta appears to be equivalent is that of Lake Iroquois with its outlet at Rome and thence draining into the Hudson valley.

Conditions under which the Albany clays were deposited. The conditions under which gravel and sand are deposited both above and below the level of standing water are much better understood than is the case with the sedimentation of clays, particularly those deposits with which we are here concerned, the rock-flours of glaciated districts. At the present time, there is an abundant literature concerning the clays of existing and vanished glaciers, in which, however, there is scant discussion concerning the factors which control the deposition of clays.

There is a variation in the delivery of clay from a glacier dependent on diurnal and seasonal changes of temperature in the atmosphere, subject to modification by the passage over the glacier of those whirls of the atmosphere known as cyclonic movements or storms with their accompanying precipitation in the form of rain or snow.

*Diurnal changes of temperature and their effect on glacial clays.* With each rotation of the earth on its axis in middle latitudes, a glacier is alternately exposed to the sun's heat and shielded from this cause of melting. During the day, the effect of insolation is to swell the glacial drainage with water carrying detritus set free by the melting of the ice. Other things being equal a larger quantity of clay will be carried out of a glacier at day than at night when the streams are checked. The greater volume and velocity of the streams discharging directly from a glacier into a water basin during the day will tend to carry the suspended clay particles farther out and allow of their wider distribution by stream-made currents than at night when not only is there less clay delivered but the transporting agencies are less effective. But the clay deposited under these day conditions will contain more coarse mineral particles than the night clays when only the finest rock-flour escapes to the area of clay deposition. There